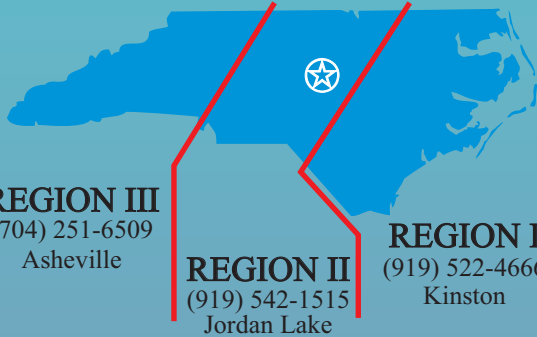


HOW TO REACH US...



Central Office
Raleigh N.C.
(919) 733-2162



REGION III
(704) 251-6509
Asheville

REGION II
(919) 542-1515
Jordan Lake

REGION I
(919) 522-4666
Kinston

District Offices

D1	Asheville	(704) 667-5211
D2	Lenoir	(704) 757-5611
D3	Rockingham	(910) 997-9220
D4	New Bern	(919) 514-4764
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D12	Mt. Holly	(704) 827-7576
D13	Fairfield	(919) 926-3041

Other Offices

1	Goldsboro Forestry Center	(919) 731-7988
2	Griffiths Forestry Center	(919) 553-6178
3	Morganton Forestry Center	(704) 438-6270
4	Holmes Educational State Forest	(704) 692-0100
5	Gill State Forest- Crossnore Mountain Training Facility	(704) 733-5236 (704) 733-4242
6	Clemmons Educational State Forest	(919) 553-5651
7	Bladen Lakes State Forest	(910) 588-4964
8	Turnbull Creek Educational State Forest	(910) 588-4161
9	Rendezvous Mt. Educational State Forest	(910) 667-5072
10	Tuttle Educational State Forest	(704) 757-5608
11	Jordan Lake Educational State Forest	(919) 542-1154
12	BRIDGE I (Morganton)	(704) 438-6267
13	BRIDGE II (Crossnore)	(704) 765-5745



North Carolina Division of Forest Resources



**Pales
Weevil**



**Pitch-eating
Weevil**

Prepared by Coleman Doggett and Patrick Barry

The Pales Weevil and Pitch-eating Weevil in North Carolina



James B. Hunt, Jr.
Governor

Wayne McDevitt
Secretary

The Pales Weevil and Pitch-eating Weevil in North Carolina



**Pales
Weevil**



**Pitch-eating
Weevil**



The Pales Weevil and Pitch-eating Weevil in North Carolina

The pales weevil (*Hylobius pales*) is a snout beetle found over most of the eastern United States and Canada. The insect, along with the closely related pitch-eating weevil, (*Pachylobius picivorus*) girdles and kills all species of pine seedlings found in North Carolina.

Life Cycle

Adult weevils are black or brown and range from one-fourth to one-third of an inch in length. The weevils are strong fliers and have a stout, prominent snout. They are attracted to the odor of pine trees that have been freshly harvested or damaged -- by fires or storms. Once weevils fly into an area, they begin to feed on pine material and lay eggs beneath the bark of stumps and roots, as well as logs and logging debris. The eggs hatch into creamy-white "c" shaped larvae that construct irregular feeding galleries beneath the bark. They will then build a cocoon made out of wood chips where they pupate. After resting in the pupa stage for a short time, the insects transform into adults. The entire process from egg to adult requires 60 to 90 days.



Pitch Eating Weevil and Feeding Damage

Pitch Eating Weevil



Side View

Top View

Damage

The adult weevil damages pine seedlings by feeding on the bark, usually at night. If only a small amount of feeding occurs, it will appear as a series of resin-encrusted pits. If large numbers of weevils are present, seedlings may be entirely debarked, and will die. Feeding may occur anywhere along the stem of the seedling or below ground on its roots. Since longleaf pine seedlings have little above-ground material, most feeding will take place on the root system. With other species of pine, feeding is usually above ground and is often concentrated just above groundline.

Seedlings planted on areas where pine material was cut after June are at risk from weevil attacks. Weevils attracted into these areas are caught by cold weather and burrow into the upper layer of soil to escape the cold. They emerge during warm periods during the winter and spring and if seedlings are nearby, will feed upon them. In early summer, the weevils fly away to find new feeding locations, so damage ends.

Hazard Rating

If no pine material is disturbed on a site after June, the weevil hazard will be very low for seedlings planted during the following winter. If over five cords per acre of pine material is harvested or damaged by a natural disaster, after June, control is necessary.

Control

Several control options are available for preventing weevil damage to pine seedlings on high hazard sites.

1. Postpone planting for a year.
2. Plant seedlings treated with an insecticide in the nursery. (Warning: Although this is an inexpensive and usually effective option, if very large numbers of weevils are present, they may overcome even treated seedlings.)
3. Treat individual seedlings with pesticide using a hand sprayer after planting

For information on currently registered pesticides for weevil control, contact your local County Forest Ranger, Forester or Extension Agent.



The Pales Weevil

